

ICES Data Policy 2006

1 Goal

The goal of this policy is to serve the scientific community, and facilitate the production of advice and status reports by stating the conditions for data submission, access and use.

2 Scope

This policy applies to data managed by ICES, and to ICES activities for providing access to data managed elsewhere.

3 Policy for Use of Data

ICES makes data available in an open, timely and easy way to users, but ICES remains dependent on data contributions.

- Correct and appropriate data interpretation is solely the responsibility of data users.
- Data Users must not expressly or otherwise imply ICES' substantiation of their work, results, conclusions and/or recommendations.
- Data sources must be duly acknowledged.
- Data Users must respect any and all restrictions on the use or reproduction of data such as restrictions on use for commercial purposes.
- Data Users are obliged to inform ICES of any suspected problems in the data.
- Data Users are encouraged to inform ICES of possible sources of other relevant data.

4 Policy on Contribution of Data

All data submitted to ICES are considered to be in the public domain unless otherwise explicitly specified and agreed.

Meta-data and other supplemental information should be submitted. This includes:

- Measurement technique, accuracy and precision
- Analysis techniques
- Quality information such as flags or other indicators
- Contact person for data queries
- Person(s) or organization(s) to be acknowledged

All data including meta-data and quality indicators should be submitted using standard codes, formats, and protocols to the extent possible.

Data submissions should be made as early as possible.

5 Data Quality

ICES develops and applies quality assurance procedures as appropriate and feasible, and in cooperation with data sources and other organizations. ICES may also receive reports on suspicious data. ICES will inform data sources of relevant quality issues.

Although the ICES Data Centre may perform some data quality control, the data source always retains complete responsibility for data quality .

When ICES Expert Groups and Committees use data held by the ICES Data Centre, they take responsibility for adequate and responsible use of the data. Uncertainty with regard to data quality will be taken into account.

ANNOTATIONS/Supplemented information to the ICES data policy

ad 1 & 2: Motivation Objective and Framework for the Data Policy

This policy sets the framework for ICES' work involving data collected, evaluated and/or used within its community. It gives rules needed as a prerequisite to make ICES data and ICES work attractive to a wider public. The new policy, that has to replace a decade-old and therefore outdated policy, is intended to facilitate the coordination and promotion of marine research in the North Atlantic, one of ICES' prime purposes. Similarly, the new policy is intended to clarify rules and procedures with regard to data used by ICES expert groups. It will therefore improve the capacity of the ICES to provide quality advice in an ecosystem context.

Elements on how to implement the policy within ICES can be found in the ICES Data Strategy and the ICES Data Center Business plan.

Data used by the ICES community might be stored in centralised or distributed systems. A centralised database is where all data are physically located at and served from a single location, as is the current ICES database. A distributed database is where data can be located at various geographically distributed nodes (but still be accessible through one central node or hub). The ICES data policy applies to data managed by ICES and to ICES activities for providing access to data managed elsewhere.

By maximizing the availability of data to the community at-large, ICES promotes the use of these data, thereby ensuring that their maximum value can be realized and thus contribute to an increased understanding of the marine environment.

ICES data policy is consistent with and in the spirit of national and international policies and laws. The policies and laws may apply to the ICES Secretariat, member states, and/or to the people or organizations that either provide or use data and information managed by ICES. Applicable policies or laws are those related to UN conventions, policies of international bodies often within the UN, policies and laws of the European Union as well as of ICES member states. A review of data policies relevant to ICES' work is given in annex 4 of the Report of the ICES Study Group on Management of Integrated Data (ICES CM2005/ACE:03, Appendix 1).

ad 3: Policy for Use of Data

The ICES website will be a key focus point in disseminating information to the ICES community. Data might be quality controlled (see below): regardless of whether the data is quality controlled or not, ICES and the data source do not accept any liability for the correctness

and/or appropriate interpretation of the data. Interpretation should follow scientific rules and is always the user's responsibility.

Users must acknowledge data sources. It is not ethical to publish data without proper attribution or co-authorship. Any person making substantial use of data must communicate with the data source prior to publication, and should possibly consider the data source(s) for co-authorship of published results.

All data held by ICES should eventually become publicly available, with due regard to relevant legislation. However, access to sensitive data may be restricted or data may be aggregated for a limited period of time if specifically stipulated by the data source (see below). Also, the use or reproduction of data for commercial purpose might require prior written permission from ICES and/or the data source.

Users are obliged to inform ICES of any problems encountered with ICES-provided data. A timely and easy-to-use feedback procedure will be available, aimed at correcting data at the data source. This feedback will increase the quality of the data and therefore cover one aspect of added value through open access to data.

To become the focal point for marine data in the North Atlantic, ICES will continuously expand its data repositories as well as links to external data. Users are therefore encouraged to contribute information on data sources currently not available through ICES but possibly important for ICES' work.

ad 4: Policy on Contribution of Data

Data sources may be the originators of the data/information, for example, persons responsible for the scientific work that produce the data/information; or an intermediary such as the data sources' associated institute(s), the agency that commissioned or funded the work, or even the information technology group responsible for preparing the data for submission to ICES. The data source must precisely specify any access restrictions that it wishes ICES to uphold. Some cases that call for restrictions include data which is protected by law and data submitted during a prescribed period of exclusive use (which is normally not more than two years for data from scientific origin - the time needed for initial collation and quality control). Restricted access will be considered on a case-by-case basis. ICES urges data sources to re-enforce their commitment to free-of-charge and unrestricted use of their data.

Data and information are provided to ICES from many data sources. They are of variable quality and can be obtained using a variety of methodologies. Three types of data are distinguished.

- **Detail data** are individual measurements or observations. In order to interpret detail data, related attribute data such as type of date, location, time and unit of measurement are also required.
- **Aggregate data** are summarized detail data.
- **Meta-data** are data about data. That is, they provide information about detail or aggregate data sets. Examples of meta-data include accuracy, precision or method of measurement, and location, structure or ownership of the data.

In order to maximize the usability of data and thereby their value, data sources must supply meta-data and, if available, data quality indicators. All data including meta-data and quality indicators should be submitted using standard coding formats and protocols to the extent possible.

Speed is becoming a primary factor determining the usefulness of data, thus data should be made accessible as soon as possible and to the broadest user group possible. This implies both

technical and policy considerations and coordination on the part of data sources, users, and ICES. For example, it will be possible for data sources to submit multiple versions of the same data set during the process of quality control.

End-to-end data management (data life cycle) is encouraged (see Annex 3 of ICES CM 2005/ACE:03).

Some - often older - data may be unintentionally destroyed or lost. ICES strives to rescue and archive valuable data relevant to the ICES mission that are at risk, including those residing in reports and documents. The data source, however, is responsible for the providing sufficient documentation with the data.

ad 5: Data Quality

To indicate the quality controls that have been applied to a specific data set, ICES' systems will accommodate quality flags. The system will allow re-submission of data throughout the quality control process, and thus also allow for accelerated submission of data . For example, preliminary data can be submitted immediately after collection and replaced later by cleaned data.

Finally, the reporting of suspected errors in the data will be facilitated, and that information relayed to the respective data source so corrections can be made.